

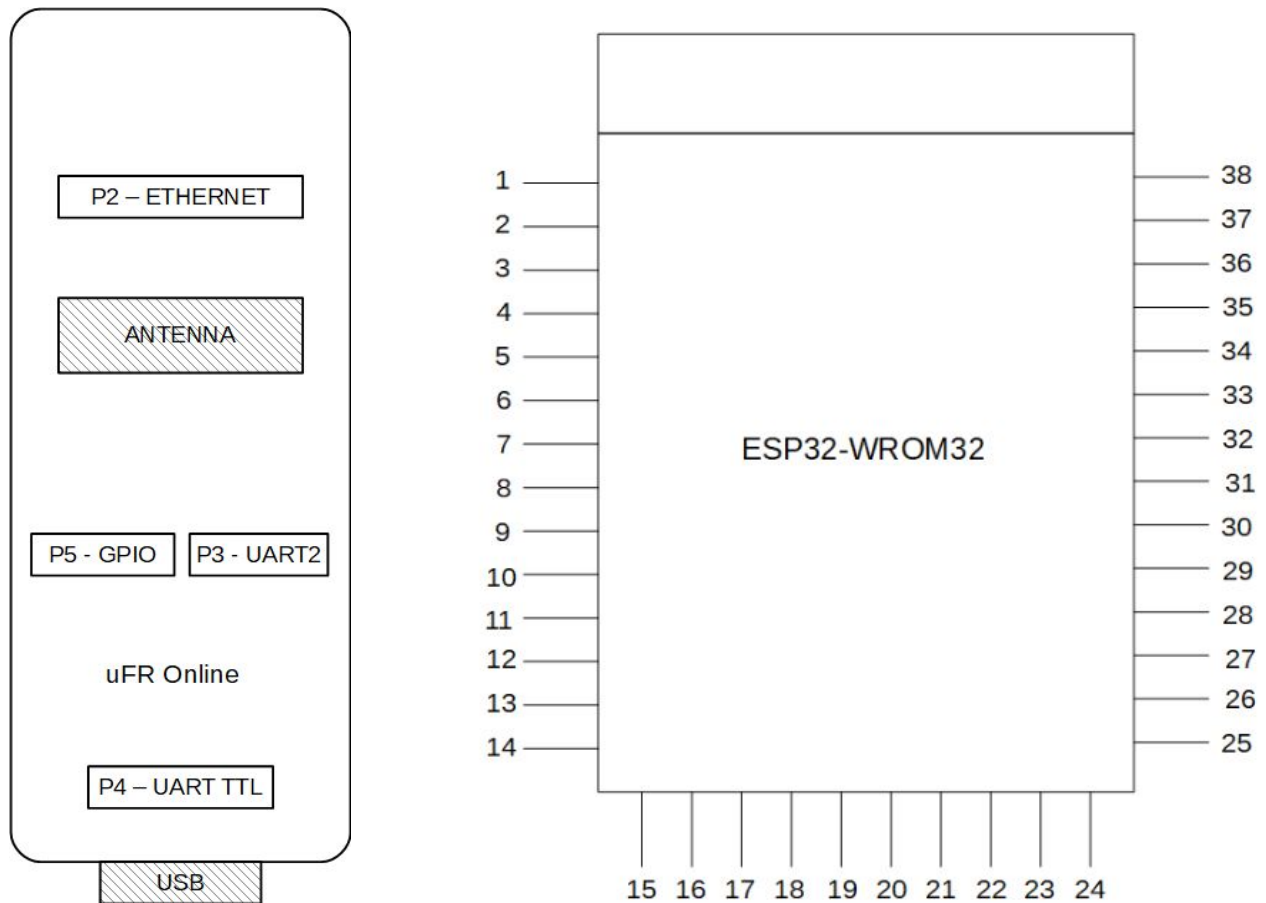
# uFR Online pins and connectors description

## Version 1.0

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## Connectors location and ESP32 pinout



## Available pins

In table below is shown list of available pins on uFR Online.

User available uFR Online pins		
ESP32 Pin number	GPIO	Description
4	GPIO36	External input pin 1
5	GPIO39	External input pin 2
6	GPIO34	Connected to uFR reader TX
7	GPIO35	Connected to external UART TX
8	GPIO32	Connected to uFR reader reset
9	GPIO33	External input/output pin 3
13	GPIO13	Connected to internal RGB LED
24	GPIO2	External output pin 6
27	GPIO16	Connected to uFR reader RX
29	GPIO5	External input/output pin 4
30	GPIO18	External input/output pin 5
34	GPIO3	Connected to Serial to USB FTDI RX
35	GPIO1	Connected to Serial to USB FTDI TX
37	GPIO23	Connected to external UART RX

## User programmable pins

In table below is shown list of user programmable pins on OEM unlocked uFR Online.

UART 1 - Internally connected to uFR Reader		
ESP32 Pin number	GPIO	Description
6	GPIO34	Connected to uFR Reader TX
8	GPIO32	Connected to uFR Reader reset
27	GPIO16	Connected to uFR reader RX

UART 2 - connected external P3 connector			
P3 Pin number	ESP32 Pin number	GPIO	Description
1	X	X	Connected to 3.3V power supply
2	7	GPIO35	Connected to external UART TX
3	37	GPIO23	Connected to external UART RX
4	8	GPIO32	Connected to uFR Reader reset
5	X	X	Connected to GND

Input/Output pins - connected external P5 connector			
P5 Pin number	ESP32 Pin number	GPIO	Description
1	4	GPIO36	External input pin 1
2	5	GPIO39	External input pin 2
3	9	GPIO33	External input/output pin 3
4	29	GPIO5	External input/output pin 4
5	30	GPIO18	External input/output pin 5
6	24	GPIO2	External output pin 6

## Non-programmable pins

In table below is shown list of pins that are internally connected and not user programmable pins on OEM unlocked uFR Online.

<b>External P4 connector. Only available on UART TTL version without USB connector</b>	
<b>P4 Pin number</b>	<b>Description</b>
1	External 5V power supply
2	UART TX Pin
3	UART RX Pin
4	UART RTS Pin
5	GND
6	UART DTR Pin

**External P2 connector. Only available on Ethernet version with dedicated LAN adapter.**

## Revision history

Date	Version	Comment
2019-07-15	1.0	Base document